

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Hideo TASHIRO et al. Art Unit:
Serial No.: Examiner:
Filed:
Title: BIOMOLECULE MICROARRAY SUPPORT, BIOMOLECULE
MICROARRAY USING THE SUPPORT, AND METHOD OF FABRICATING
THE SUPPORT

Assistant Commissioner for Patent
Washington, DC 20231



22511

PATENT TRADEMARK OFFICE

PRELIMINARY AMENDMENT

Dear Sirs:

Before examining the referenced application on the merits, please amend the application as outlined below:

IN THE CLAIMS

Please amend the claims as follows [a marked up copy of the amended claims is provided in Appendix A]:

3. (Amended) The biomolecule microarray support of claim 1, wherein said support is a glass plate, silicon plate, plastic plate, gold or gold-coated plate, or silver or silver-coated plate.
4. (Amended) The biomolecule microarray support of claim 1, wherein said probe biomolecule-attachable spots have avidin molecules bound in a single layer to the ends of the biotin molecules bound to the surface of the support.
5. (Amended) A biomolecule microarray characterized in that probe biomolecules are bound to said probe biomolecule-attachable spots of the support of claim 1.

7. (Amended) The biomolecule microarray of claim 5, wherein said probe biomolecules are biotin-labeled biomolecules and are bound to said probe biomolecule-attachable spots by biotin-avidin binding.

8. (Amended) A method of fabricating the biomolecule microarray support of claim 1, comprising steps by which said probe biomolecule-attachable spots are formed only on the specific areas of the surface of a support by the photolithography and etching technique.

Please add the following claims:

--9. (New) The biomolecule microarray support of claim 2, wherein said support is a glass plate, silicon plate, plastic plate, gold or gold-coated plate, or silver or silver-coated plate.

10. (New) The biomolecule microarray support of claim 2, wherein said probe biomolecule-attachable spots have avidin molecules bound in a single layer to the ends of the biotin molecules bound to the surface of the support.

11. (New) The biomolecule microarray support of claim 3, wherein said probe biomolecule-attachable spots have avidin molecules bound in a single layer to the ends of the biotin molecules bound to the surface of the support.

12. (New) A biomolecule microarray characterized in that probe biomolecules are bound to said probe biomolecule-attachable spots of the support of claim 2.

13. (New) A biomolecule microarray characterized in that probe biomolecules are bound to said probe biomolecule-attachable spots of the support of claim 3.

14. (New) A biomolecule microarray characterized in that probe biomolecules are bound to said probe biomolecule-attachable spots of the support of claim 4.

15. (New) The biomolecule microarray of claim 6, wherein said probe biomolecules are biotin-labeled biomolecules and are bound to said probe biomolecule-attachable spots by biotin-avidin binding.

16. (New) A method of fabricating the biomolecule microarray support of claim 2, comprising steps by which said probe biomolecule-attachable spots are formed only on the specific areas of the surface of a support by the photolithography and etching technique.

17. (New) A method of fabricating the biomolecule microarray support of claim 3, comprising steps by which said probe biomolecule-attachable spots are formed only on the specific areas of the surface of a support by the photolithography and etching technique.

18. (New) A method of fabricating the biomolecule microarray support of claim 4, comprising steps by which said probe biomolecule-attachable spots are formed only on the specific areas of the surface of a support by the photolithography and etching technique.--

REMARKS

The claims have been amended to remove multiple dependencies. No amendments have been made for reasons relating to patentability. No new matter has been introduced by way of this amendment. Full examination and favorable action are requested.

Please charge any fees, or make any credits, to Deposit Account No. 50-0591,

Reference No. 05426.014001.

Date: 1/15/01



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APPENDIX A – MARKED-UP VERSION OF THE AMENDED CLAIMS

The material to be added is indicated by underlining, while the matter to be deleted is in brackets and in boldface.

3. (Amended) The biomolecule microarray support of claim 1 **[or 2]**, wherein said support is a glass plate, silicon plate, plastic plate, gold or gold-coated plate, or silver or silver-coated plate.

4. (Amended) The biomolecule microarray support of **[any one of claims 1 to 3]** claim 1, wherein said probe biomolecule-attachable spots have avidin molecules bound in a single layer to the ends of the biotin molecules bound to the surface of the support.

5. (Amended) A biomolecule microarray characterized in that probe biomolecules are bound to said probe biomolecule-attachable spots of the support of **[any one of claims 1 to 4]** claim 1.

7. (Amended) The biomolecule microarray of claim 5 **[or 6]**, wherein said probe biomolecules are biotin-labeled biomolecules and are bound to said probe biomolecule-attachable spots by biotin-avidin binding.

8. (Amended) A method of fabricating the biomolecule microarray support of **[any one of claims 1 to 4]** claim 1, comprising steps by which said probe biomolecule-attachable spots are formed only on the specific areas of the surface of a support by the photolithography and etching technique.

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